WHAT IS CLAIMED IS:

1. A photoelectric sensor comprising:

a light projection unit having a light emission element for emitting detecting light to a detection region;

a light reception unit having a light reception element for receiving light from the detection region to obtain a detection value corresponding to an amount of received light;

a target value storage unit for storing an adjustment target value for the detection value;

sensitivity adjustment means for adjusting a power of the detection light emitted from the light projection unit and/or a conversion factor from the amount of received light in the light reception unit to the detection value, thereby matching the detection value with the target value; and

adjustment instruction means for instructing execution of adjustment to the sensitivity adjusting means.

2. An amplifier of the photoelectric sensor according to claim 1 of an amplifier separation type.

3. An amplifier of the photoelectric sensor according to claim 1 of a fiber type.

4. The photoelectric sensor according to claim 3, wherein

the target value is set or can be set in the middle portion of one third of the range of detection values that can be handled after

sensitivity adjustment; therefore, the target value can be used in common with cases of fiber arrangements of a transmission type and a reflection type.

5. The photoelectric sensor according to claim 1, further comprising:

output means for outputting the detection value as an analog signal such as a voltage value or a current value or, alternatively, as a signal showing a digitized numerical value.

6. The photoelectric sensor according to claim 1, further comprising:

threshold value setting means; and

comparison means for comparing the threshold value with the detection value.

7. The photoelectric sensor according to claim 6, wherein

the threshold value setting means is used for manual setting, the photoelectric sensor further comprising display means for numerically displaying the threshold value.

8. The photoelectric sensor according to claim 6, wherein

the threshold value setting means is used for selecting one of plural threshold values prepared for use in advance, the photoelectric sensor further comprising display means for displaying which one of the plural threshold values is selected.

9. The photoelectric sensor according to claim 1, further comprising:

target value change means.

10. An adjustment method for a photoelectric sensor, comprising the steps of:

performing sensitivity adjustment in a state where no object exists using the photoelectric sensor according to claim 6; and

performing threshold value setting so that a threshold value takes a predetermined value after execution of the sensitivity adjustment.

11. An adjustment method for a photoelectric sensor, comprising the steps of:

installing plural photoelectric sensors according to claim 6 in a predetermined usage situation;

performing sensitivity adjustment on the plural photoelectric sensors in a state where no detection object exists; and

performing threshold value setting on the plural photoelectric sensors so that all of threshold values of the plural photoelectric sensors takes the same predetermined value after execution of sensitivity adjustment.